

LAMB CREEK TRAILER PARK (PWSNO 1090077) SOURCE WATER ASSESSMENT REPORT

December 16, 2002



State of Idaho Department of Environmental Quality

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SOURCE WATER ASSESSMENT FOR LAMB CREEK TRAILER PARK

Under the Federal Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency (EPA) to assess every source of public drinking water for its relative sensitivity to contaminants regulated by the Act. The Department of Environmental Quality is completing the assessments for all Idaho public drinking water systems. The assessment for your drinking water source is based on well construction characteristics; site specific sensitivity factors associated with the aquifer the water is drawn from; a land use inventory inside the well recharge zone; and water quality history. For non-community transient water systems like Lamb Creek Trailer Park, recharge zones were generally delineated as a 1000-foot fixed radius around the wells.

This report, *Source Water Assessment for Lamb Creek Trailer Park* describes factors used to assess the well's susceptibility to contamination. The analysis relies on information from the well log; an inventory of land use, well site characteristics, potential contaminant sites identified through a Geographic Information System database search; and information from the public water system file. The ground water susceptibility analysis worksheet for the Lamb Creek Trailer Park well is attached.

Taken into account with local knowledge and concerns, this assessment should be used as a planning tool to develop and implement appropriate protection measures for this system. **The results should not be used as an absolute measure of risk and are not intended to undermine the confidence in your water system.**

Well Construction. Lamb Creek Trailer Park is located on Highway 57 about 4 miles south of Priest Lake, Idaho. Drinking water for 9 mobile homes, a church and residence is supplied by an 86-foot deep well located in a wood frame pump house near the center of the park.

Because the well log is not available, several risk factors related to construction and well site geology are unknown. The well was drilled in the late 1980s. The 6-inch steel casing extends 3.5 inches above the floor of the pumphouse and is fitted with a non-watertight sanitary well seal. The Lamb Creek Trailer Park well was not in compliance with *Idaho Rules for Public Drinking Water Systems* when it was inspected in March 2000. A 1500-gallon septic tank, located about 83 feet southeast of well, is closer than allowed under *Idaho Rules for Public Drinking Water Systems*. Contaminants of concern associated with septic system components include inorganic chemicals like nitrates in addition to microscopic pathogens. The well casing needed to be extended to at least 6 inches above the pumphouse floor, and the wooden floor of the pumphouse needed to be replaced with concrete and drained to daylight. The well seal needed replacement with a vented, watertight model.

Well Site Characteristics. Hydrologic sensitivity scores are derived from information on the well log and from the soil drainage classification inside the recharge zone delineated for your well. Soils in the well recharge zone for the Lamb Creek Trailer Park well are generally poorly drained to moderately well drained. Soils in these drainage classes provide some protection against migration of contaminants toward the well. The well is relatively shallow, which makes it more vulnerable to contamination than a deeper well. Specific information about soil composition at the well site is not available.

Potential Contaminant Inventory. The 1000-foot buffer zone delineated for the Lamb Creek Trailer Park well covers a wooded area that is being developed for housing. Other than the septic tank inside the sanitary setback zone the only potential contaminant source documented inside the delineation boundary is Highway 57. Ephemeral streams crossing the delineation boundaries were not counted in the potential contaminant inventory since the well is designated as a ground water source without surface water influence.

Water Quality History. Lamb Creek Trailer Park has had no persistent water quality problems. In the period from March 1998 through the present one quarterly sample tested positive for total coliform bacteria. Follow up testing was negative. Annual tests for nitrates show concentrations ranging between 0.017 and 0.073 mg/l. The Maximum Contaminant Level (MCL) for nitrate is 10 mg/l.

Susceptibility to Contamination. An analysis of the Lamb Creek Trailer Park well, incorporating information from the public water system file and the potential contaminant inventory, ranked the well highly susceptible to microbial and inorganic chemical contamination because of the septic tank located inside the sanitary setback zone. The risk to the Lamb Creek Trailer Park well relative to other classes of regulated contaminants is moderate. The complete analysis worksheet for your well is on page 6 of this report. Formulas used to compute final scores and susceptibility rankings are at the bottom of the worksheet.

Source Water Protection. This assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what ranking a source receives, protection is always important. Whether the source is currently located in a “pristine” area or an area with numerous industrial and/or agricultural land uses, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

Operating and maintaining the well in compliance with Idaho Rules for Public Drinking Water Systems is the most important drinking water protection tool available to Lamb Creek Trailer Park. Until the septic tank issue is resolved with the sewer district, the park needs to be especially vigilant to protect its well from contamination. The area around the tank should be monitored frequently for any signs of failure such as odor or lush growth of vegetation. The pump house and well seal should be repaired as outlined in the March 2000 sanitary survey report. It might be helpful to fence the area around the well as a reminder to keep this sensitive area free from the use or storage of pesticides, herbicides, paints, petroleum products, parked vehicles and so on.

Every system should develop an emergency response plan. There is a simple fill-in-the-blanks form available on the DEQ website (www.state.id.us/deq/water/water1.htm) to guide systems through the emergency planning process.

The system should also investigate ground water protection programs like Home*A*Syst. These programs are designed to help well owners assess everyday activities for their potential impact on drinking water quality. Topics include septic tank management, petroleum product storage, handling and storing lawn and household chemicals and similar activities. Due to the time involved with the movement of ground water, drinking water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term.

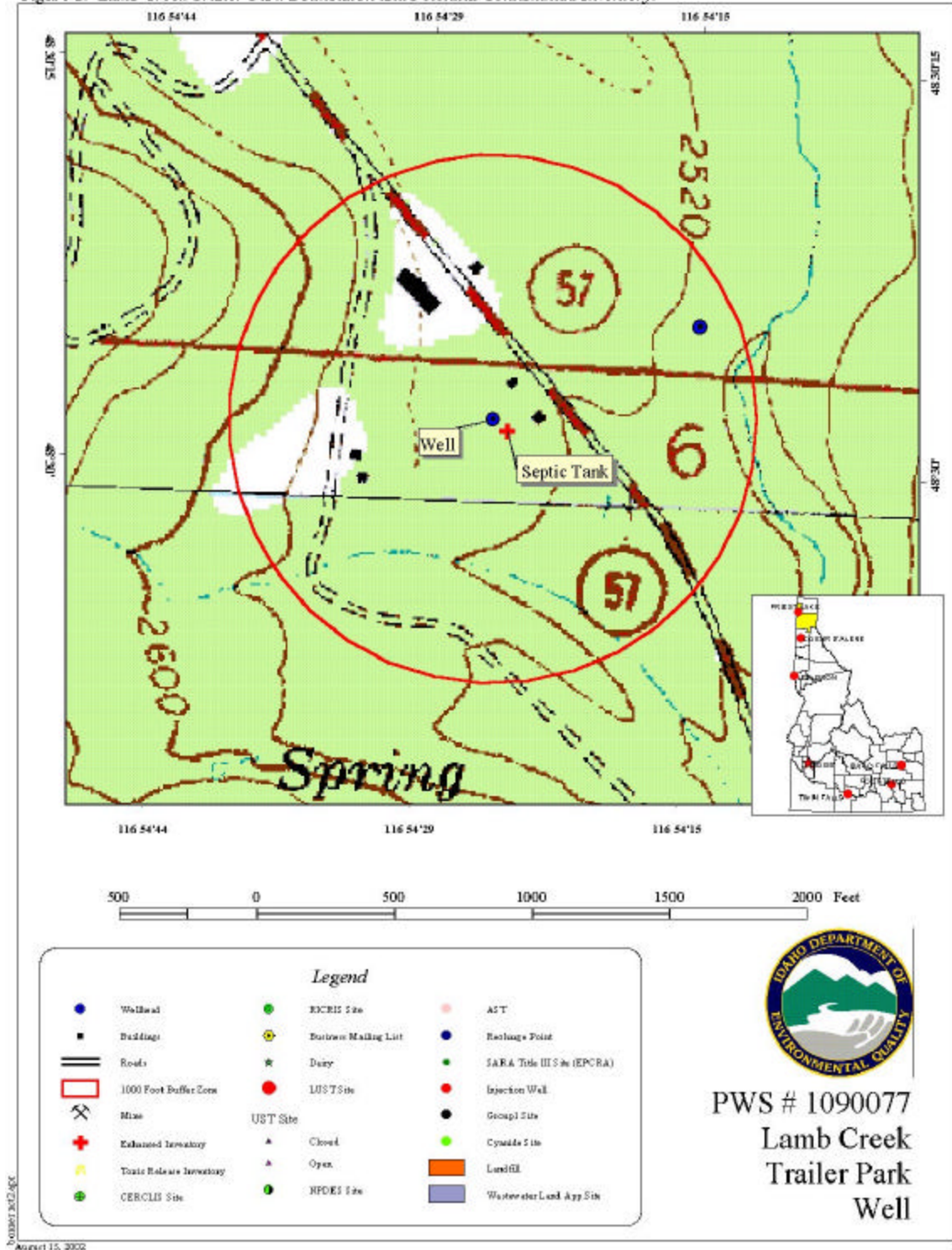
Assistance. Public water suppliers and users may call the following IDEQ offices with questions about this assessment and to request help with drinking water protection planning.

Coeur d'Alene Regional DEQ Office (208) 769-1422

State IDEQ Office (208) 373-0502

Website: www.deq.state.id.us/water/water1.htm

Figure 1. Lamb Creek Trailer Park Delineation and Potential Contaminant Inventory.



Ground Water Susceptibility

Public Water System Name :

LAMBCREEK TRAILER PARK

Well :

WELL #1

Public Water System Number :

1090077

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1. System Construction		SCORE			
Drill Date	UNKNOWN				
Driller Log Available	NO				
Sanitary Survey (if yes, indicate date of last survey)	YES 2000				
Well meets IDWR construction standards	NO	1			
Wellhead and surface seal maintained	NO	1			
Casing and annular seal extend to low permeability unit	UNKNOWN	2			
Highest production 100 feet below static water level	UNKNOWN	1			
Well protected from flooding	NO	1			
Total System Construction Score		6			
2. Hydrologic Sensitivity					
Soils are poorly to moderately drained	YES	0			
Vadose zone composed of gravel, fractured rock or unknown	UNKNOWN	1			
Depth to first water > 300 feet	NO	1			
Aquitard present with > 50 feet cumulative thickness	UNKNOWN	2			
Total Hydrologic Score		4			
3. Potential Contaminant / Land Use - ZONE 1A		IOC	VOC	SOC	Microbial
		Score	Score	Score	Score
Land Use Zone 1A	RESIDENTIAL	2	2	2	2
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	YES 1500 GALLON SEPTIC TANK	YES	NO	NO	YES
Total Potential Contaminant Source/Land Use Score - Zone 1A		2	2	2	2
Potential Contaminant / Land Use - ZONE 1B					
Contaminant sources present (Number of Sources)	YES	1	1	1	1
(Score = # Sources X 2) 8 Points Maximum		2	2	2	2
Sources of Class II or III leacheable contaminants or Microbials	YES	1	1	1	
4 Points Maximum		1	1	1	
Zone 1B contains or intercepts a Group 1 Area	NO	0	0	0	0
Land use Zone 1B	Less Than 25% Agricultural Land	0	0	0	0
Total Potential Contaminant Source / Land Use Score - Zone 1B		3	3	3	2
Cumulative Potential Contaminant / Land Use Score		5	5	5	4
4. Final Susceptibility Source Score		11	11	11	12
5. Final Well Ranking		*High	Moderate	Moderate	*High

*High due to presence of 1500 gallon septic tank within 100 feet of well.

The final scores for the susceptibility analysis were determined using the following formulas:

- 1) VOC/SOC/IOC Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.27)
- 2) Microbial Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.35)

Final Susceptibility Ranking:

- 0 - 5 Low Susceptibility
- 6 - 12 Moderate Susceptibility
- > 13 High Susceptibility

POTENTIAL CONTAMINANT INVENTORY LIST OF ACRONYMS AND DEFINITIONS

AST (Aboveground Storage Tanks) – Sites with aboveground storage tanks.

Business Mailing List – This list contains potential contaminant sites identified through a yellow pages database search of standard industry codes (SIC).

CERCLIS – This includes sites considered for listing under the **Comprehensive Environmental Response Compensation and Liability Act (CERCLA)**. CERCLA, more commonly known as Superfund is designed to clean up hazardous waste sites that are on the national priority list (NPL).

Cyanide Site – DEQ permitted and known historical sites/facilities using cyanide.

Dairy – Sites included in the primary contaminant source inventory represent those facilities regulated by Idaho State Department of Agriculture (ISDA) and may range from a few head to several thousand head of milking cows.

Deep Injection Well – Injection wells regulated under the Idaho Department of Water Resources generally for the disposal of stormwater runoff or agricultural field drainage.

Enhanced Inventory – Enhanced inventory locations are potential contaminant source sites added by the water system. These can include new sites not captured during the primary contaminant inventory, or corrected locations for sites not properly located during the primary contaminant inventory. Enhanced inventory sites can also include miscellaneous sites added by the Idaho Department of Environmental Quality (DEQ) during the primary contaminant inventory.

Floodplain – This is a coverage of the 100year floodplains.

Group 1 Sites – These are sites that show elevated levels of contaminants and are not within the priority one areas.

Inorganic Priority Area – Priority one areas where greater than 25% of the wells/springs show constituents higher than primary standards or other health standards.

Landfill – Areas of open and closed municipal and non-municipal landfills.

LUST (Leaking Underground Storage Tank) – Potential contaminant source sites associated with leaking underground storage tanks as regulated under RCRA.

Mines and Quarries – Mines and quarries permitted through the Idaho Department of Lands.)

Nitrate Priority Area – Area where greater than 25% of wells/springs show nitrate values above 5mg/l.

NPDES (National Pollutant Discharge Elimination System) – Sites with NPDES permits. The Clean Water Act requires that any discharge of a pollutant to waters of the United States from a point source must be authorized by an NPDES permit.

Organic Priority Areas – These are any areas where greater than 25 % of wells/springs show levels greater than 1% of the primary standard or other health standards.

Recharge Point – This includes active, proposed, and possible recharge sites on the Snake River Plain.

RICRIS – Site regulated under **Resource Conservation Recovery Act (RCRA)**. RCRA is commonly associated with the cradle to grave management approach for generation, storage, and disposal of hazardous wastes.

SARA Tier II (Superfund Amendments and Reauthorization Act Tier II Facilities) – These sites store certain types and amounts of hazardous materials and must be identified under the Community Right to Know Act.

Toxic Release Inventory (TRI) – The toxic release inventory list was developed as part of the Emergency Planning and Community Right to Know (Community Right to Know) Act passed in 1986. The Community Right to Know Act requires the reporting of any release of a chemical found on the TRI list.

UST (Underground Storage Tank) – Potential contaminant source sites associated with underground storage tanks regulated as regulated under RCRA.

Wastewater Land Applications Sites – These are areas where the land application of municipal or industrial wastewater is permitted by DEQ.

Wellheads – These are drinking water well locations regulated under the Safe Drinking Water Act. They are not treated as potential contaminant sources.

NOTE: Many of the potential contaminant sources were located using a geocoding program where mailing addresses are used to locate a facility. Field verification of potential contaminant sources is an important element of an enhanced inventory.

Where possible, a list of potential contaminant sites unable to be located with geocoding will be provided to water systems to determine if the potential contaminant sources are located within the source water assessment area.